

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

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In the Matter of)	
Amendment of Part 74 of the Commission's)	
Rules Regarding FM Translator Interference)	MB Docket No. 18-119
)	

To: The Commission

COMMENTS OF COMMUNICATIONS TECHNOLOGIES, INC.

INTRODUCTION

Communications Technologies, Inc. ("CTI"), pursuant to the FCC Rule Section 1.401, submits its comments to the above captioned Notice of Proposed Rule Making ("NPRM") wherein the FCC seeks to investigate possible changes to its rules relating to interference caused by FM translators and expedite the translator complaint resolution process. CTI is a broadcast engineering consulting firm formed in 1985 and which has practiced before the FCC continuously since its inception. During that time period the firm has filed hundreds of FCC applications for construction permit and license for both commercial and non-commercial FM full service and FM translator facilities and participated in numerous Rule Making proceedings.

BACKGROUND

FM translators, as secondary facilities licensed for the purpose of rebroadcasting the signal of an AM or FM primary station, were first authorized as a means of providing stations whose direct signal reception was compromised by distance or the impact of natural terrain. Under the current rules, FM translators have been required to protect both full service and "first in line" licensed secondary facilities to not just their respective protected class contour but to the extent of these stations' "listenable signal." In some instances, such a signal could extend beyond the station's

protected contour, and thus, the FM translator was required to remedy any and all listener complaints (and, in some cases, this involved a single listener complaint) from the full service or prior licensed secondary facilities to any location regardless of predicted or Longley-Rice contour determination. In contrast, FM translators have been afforded no protection from subsequently authorized full service FM facilities.

In conjunction with the FCC's AM Revitalization proceeding, which included the subsequent modification of the rules allowing AM facilities to propose the use of FM translators, the proliferation of listener complaints has exponentially grown, and has placed a number of FM translators (including those that were intended to provide some relief to AM broadcasters), in jeopardy. This conundrum is what is believed to be at the heart of the Commission's NPRM in this proceeding, in which it seeks comments on a number of proposals to provide both a more streamlined way to address and resolve FM translator interference issues as well as offer a measure of investment certainty on the part of FM translator licensees.

CTI'S COMMENTS IN RESPONSE TO FCC PROPOSALS

In response to the six points found in paragraph 1. of the NPRM put forth by the Commission in this proceeding, CTI offers the following input:

1. **Allowing translators to change channels.** CTI supports the allowance that FM translators, by minor modification application, be permitted to change channels to any available frequency to resolve a bona fide interference issue by either a licensed or modified full service or existing secondary facility. It is believed that such a revision to the existing rules will speed resolution of interference in a number of cases.
2. **Requiring a minimum number of listener complaints.** With respect to the minimum number of bona fide listener complaints that are required to allow a full service or existing secondary service facility to pursue an interference complaint, CTI believes a more equitable number than the current one (1) complaint would be a minimum of twenty (20) bona fide listener complaints. This recommendation is based on the reality that a station's listenable signal is, in part, subject to the listener's desire for a specific programming and not necessarily because the signal is one that another listener in the same geographic area may say is truly listenable; in other words, listenable signal quality is totally subjective. Thus, the twenty (20) complaint minimum would help provide a buffer taking into account

variations in listener perceived reception needs and an inherent inability to agree on whether a potentially weak, or spotty, desired station signal was even viable absent the presence of the FM translator.

We note the Commission's question as to the need to vary the number of required listener complaints in relation to the total population served by the complaining station and believe that to be the superior approach as it is consistent with Media Bureau Precedent. For instance, Rule Section 73.616(d) sets forth the level of allowable interference when a DTV station wishes to modify its transmission facilities:

"d) An application will not be accepted if it is predicted to cause interference to more than an additional 0.5 percent of the population served by another post-transition DTV station."

The Commission implemented this procedure in FCC OET Bulletin 69 in 2004 and literally hundreds of DTV facilities have been applied for and built under this standard without complaint by the stations of interference.

If the Commission were to use this established criterion, interference can be caused up to 0.5% of the population in a station's protected contour (see item 3, below). Based on this criteria, the required number of complaints would be as follows:

Population in Contour	Number of Complaints Required – 0.5% of Pop
50,000	250
100,000	500
250,000	1,250
500,000	2,500
1,000,000	5,000

This may seem extreme, but it does demonstrate how difficult it is to obtain listener interference complaints. In a rare case, one might see 100 declarations, maybe 200. Should we ask ourselves why and then, with that answer, change the percentage to perhaps 0.05% of the population in the protected contour?

Population in Contour	Number of Complaints Required – 0.05% of Pop
50,000	25
100,000	50
250,000	125
500,000	250
1,000,000	500

Hopefully, this information supports the premise that it is logical and fair to set a minimum number of required complaints and that the number of complaints required should reflect the population within the contour of the desired station.

3. **Standardized information in complaints.** The issue of the establishment of a recommended contour signal strength beyond which a full service or existing secondary service contour can claim protection from interference is a bit trickier, as the extent of a truly listenable contour will vary based on natural terrain and other obstruction conditions and interference. CTI believes the arbitrary setting of a predicted contour strength will, in some instances such as those involving unusually flat terrain or terrain that steadily increases in elevation above the transmitter site, unfairly penalize an existing facility's listenership which can and often does extend beyond its protected contour. It is for this reason that CTI supports the use of real world Longley-Rice signal strength determination in conjunction with, perhaps, a "predicted contour boundary limit" beyond which additional sporadic listener complaints would be disregarded.

There is long standing precedent for the use of the Longley-Rice prediction methodology for purposes of determining coverage over the city of license and main studio locations. The FCC case reference for the use of Longley-Rice to predict 70 dBu coverage and factors typically cited are summarized below:

*The Commission's $F(50,50)$ propagation curves used as the standard method for coverage prediction assumes a delta h (Δh) value of 50 meters. See Section 73.313(i). In the unpublished decision, **Cumulus Licensing Corp., Letter, Aug. 8, 2003**, the Audio Division staff in coordination with the Office of Engineering and Technology (OET) established the following guidelines to define "terrain departs widely": (1) Where the Δh is used as the sole determinant that the terrain along a radial widely departs from the 50 meter standard, a Δh of 20 meters or less, or 100 meters or more is required. (2) Where the antenna height above average terrain (HAAT) along the radial towards the studio location (using an extended radial) varies by more than 30% from the HAAT derived from the standard 3 to 16 km average.*

Should the Commission allow the use of Longley-Rice to establish solid coverage beyond a specific contour value, it is believed reasonable for the Media Bureau, in coordination with OET, to issue guidelines for use of the Longley-Rice method. Such guidance could be as simple as specific use of the FCC TVStudy software function for FM.

Regardless of the Commission's willingness to permit the employment of Longley-Rice in these determinations, CTI recommends the predicted 50 dBu coverage contour, in lieu of the FCC's proposed 54 dBu coverage contour, be the signal strength beyond which no additional interference can be claimed by the protected full or other existing service stations.

4. **Streamlining and expediting the interference complaint process.** CTI supports the FCC proposal to both abbreviate and streamline the interference complaint process under both Section 74.1204(f) and Section 74.1203(a)(3) to establish bona fide complainants as described in the NPRM to include four (4) basic but clear pieces of information and be signed by the listener, as well as the requirement that the objecting station must supply a map plotting the location of each of the listener complaints in relation to the relevant station contours. We are also in support of the NAB's recommendation that there be a "threshold of regular listenership" established for listeners. However, the proposal that a listener certify that they listen a minimum of twice monthly for at least six months is believed far afield from past precedent and interpretation. Commission long standing case law has required a petition to deny a radio facility application to demonstrate that each listener submitting a declaration listens to the station regularly and such listening is not the result of occasional travel through the listening area.

Regular listenership has often been described as almost daily listenership. CTI submits that if the threshold value for listening is twice per month that the listening is transient, infrequent and irregular. Further, the listenership is of no real value to the station and the station's program content clearly holds little value to the listener.

The sentence below is extracted from an FCC decision letter dated May 1, 2012, DA 12-688, New FX, New London, CT, Facility ID 154613, BNPFT-20030827AMA and is

believed typical of the historical understanding that has existed regarding what constitutes a bona fide listener.

“In promulgating Section 74.1204(f) of the Rules, the Commission stated that it “will not grant an application if an objecting party provides convincing evidence that the proposed translator station would be likely to interfere with the reception of a regularly received off-the-air existing service, even if there is no predicted overlap.”

Emphasis added.

5. **Establishing an outer contour limit.** CTI supports the concept of an outer contour limit for an affected station subject to certain flexibility described below concerning changes in specific rule sections.
6. **Modifying the scope of interference complaints.** CTI supports this goal but recommends modification to the changes in specific rule sections as discussed below and in regard to alternative means of program delivery to the listener.

INTEGRITY IN REPRESENTING THAT THERE IS OVER-THE-AIR INTERFERENCE

Common language in listener declarations filed with the FCC is found below:

I listen to the radio station daily in my home at the address below.

I listen at work in City, State.

I listen while traveling route 66 to and from work.

The radio stations making the declaration forms do not specify that listening must be to the “over-the air” signal. In our experience, almost every radio station today streams their program content and many stations use cell phone apps such as Tune-in, Simple Radio, iHeart and more to allow their program content to be listened to on a cell phone. Often, the listener connects the cell phone to the car radio through a cable or uses blue tooth to connect the cell phone to the car radio making it difficult for the listener to realize that the statement “I’m a regular listener” is not what the FCC is looking for because they are not listening to the “over-the air” signal.

CTI is concerned that the NPRM does not recognize the proliferation of ways that people can receive a radio station’s program content that is not over the air. New Technology such as 5-G for cell phones and internet and ATSC 3.0 DTV facilities will provide added bandwidth and listening opportunities that are predicted to further increase a radio station’s program content availability without relying on traditional FM radio listening. This needs to be recognized.

APPENDIX B – SUGGESTED RULE CHANGES

CTI believes that the change in 74.1201(k) should have one clarification added:

Listener certifies that the radio station program content is heard direct off-the air and is not being heard via internet, wi-fi, cell phone or other digital delivery service.

Change 3) It is suggested that the language be changed to: “a statement that the complainant listens to the desired station regularly and has been doing so for three months or more.

CTI strongly recommends that the proposed change in 74.1203(a)(3) reflect:

A minimum of 20 listener complaints and the maximum number of complaints to be equal to the population in the protected times 0.05%.

Set the limit of a station’s protected listening area to the 50 dBu contour unless the use of Longley-Rice clearly demonstrates a defined area of Longley-Rice signal equal to or greater than 50 dBu beyond the contour but in no case will the protected listening area extend beyond the 40 dBu F(50,50) contour when the Longley-Rice method is employed.

CTI believes that the proposed language in 74.1204(f) should not include 2nd or 3rd adjacent channel stations as that type of interference has been shown to be virtually unheard of in practice.

It is suggested that Section 74.1204(f) not specify the extent of the protected service area but instead reference 74.1203(a)(3).

CONCLUSION

CTI thanks the Commission and staff for the time and effort put forth in the NPRM and looks forward to reviewing other commenters' input in this proceeding.

Respectfully submitted,
Communications Technologies, Inc.



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